

# هيئة التقييس لدول مجلس التعاون لدول الخليج العربية

## GCC STANDARDIZATION ORGANIZATION (GSO)

GSO 5/FDS...../2009

غذاء ملكات النحل

**Royal jelly**

Prepared by:

Gulf technical committee for sector standard of food and agricultural products

This document is a draft Gulf Standard circulated for comments, it is therefore, subject to Alteration and modification, and may not be referred it as a Gulf Standard, until approved By the Board of Directors.

## Royal Jelly

### 1-Scope and field of application:

This Gulf Standard is concerned with fresh and dried royal jelly, and packed in packs, gelatin capsules or tablet forms.

### 2- Complementary references:

- 2.1 GSO (9): Labeling of prepackaged foodstuffs.
- 2.2 GSO (21): Hygienic regulation for food plants and their personnel.
- 2.3 GSO (323): General requirements for transportation and storage of chilled and frozen foods.
- 2.4 GSO (382,383): Maximum allowable limits of pesticides residue in agricultural and food Products - Parts 1, 2.
- 2.5 GSO (839): Food packages- Part 1: General requirements.
- 2.6 GSO (988): Limits of radioactivity levels permitted in foodstuffs- Part 1.
- 2.7 GSO (1694): General rules for food hygiene.
- 2.8 Gulf Standard which the Organization shall be approved concerning with methods for examination and test for royal jelly.

### 3- Definition:

Royal jelly (Bee milk) : Is a natural food supplement , is a thick jelly substance with creamy or white colour, secreted from the hypopharyngeal glands in the heads of worker bees to feed the larvae's queen bee .

### 4- Requirements:

The following requirements shall be met in fresh and dried royal jelly:

- 4.1 The product shall be free from pig products and its derivatives.
- 4.2 The product shall be free from alcohol.
- 4.3 The product shall be white or creamy color.

4.4 The product shall be free from fermentation and spoilage sings.

4.5 The product shall have a characteristics taste and odour of the product.

4.6 The product shall be free from food additives.

4.7 It shall be free from filling substances.

4.8 It shall be free from foreign matters and foreign odour and taste.

4.9 The PH value shall be ranged from 3, 4.

4.10 The chemical requirements for fresh and dried product shall be according to table(1):

Table (1)

Chemical requirements for fresh and dried royal jelly

Requirements	Fresh royal jelly	Dried royal jelly
Moisture content (Maximum)	60%	5%
Protein content (Minimum)	12%	32%
Carbohydrates content (Minimum)	12%	6%
Fat content (Minimum)	12.5%	
Ash content (Minimum)	0.8%	
10-hydroxy-decenoic acid ( minimum)	10%	2%

4.11 Contaminants metallic elements content of the product shall not exceed the following levels:

Lead                      0.5 ppm

Copper                   1 ppm

Arsenic                   1 ppm

4.12 The residues of pesticide content of the product shall not exceed to what mentioned in  
Gulf Standard stated in item (2.4).

4.13 Microbiological criteria of the product shall be complying to table (2):

Table (2)

## Microbiological criteria for royal jelly

Microbes	Limits /g or ml			
	n	c	m	M
- Total count of bacteria	5	1	$5 \times 10^3$	$5 \times 10^4$
-Yeast and moulds	5	1	$10^2$	$10^3$
-Clostridium botulinum	5	0	0	

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4.14 Radioactivity levels shall not exceed to what mentioned in Gulf Standard stated in item (2.5).

**5- Sampling:**

The following shall be observed during sampling, preparation and handling the sample

For examination and test:

5.1 Its prohibited to use metallic equipments during sampling, preparation and handling.

5.2 The sample shall be taken from place not subject to air currents, dust or any harmful matter.

5.3 Sampling equipments and the containers for keeping and transport shall be clean and dry.

5.4 The container for sampling shall be dark in color and not penetrate to air and light.

**6- Methods for examination and test:**

Methods for examination and test for samples shall be carried out according to Gulf

Standard stated in item (2.6).

**7- Packaging, transportation and storage:**

The following shall be observed during packaging, transportation and storage:

**7.1 Packaging:**

7.1.1 The product shall be packed immediately after collection from the cells in neutral,

Sterilized and dark glasses to keep the physical characteristics of the product .

7.1.2 The containers shall be filled to the end to prevent the affect of the air on the product.

7.1.3 The containers shall be well closed and not caused desirable changes for the product during handling and storage.

7.1.4 The product may be packed in a capsule form containing the dried product or the product In jelly form .

## **7.2 Transportation:**

7.2.1 Chilled product shall be transport at temperature not exceeds than 4°C, and for frozen product shall be transport at temperature not exceed s than(-18)°C.

7.2.2 Transportation means shall not cause any contamination for the product, and the requirements mentioned in Gulf Standard stated in item (2.3) shall be observed during the transportation.

## **7.3 Storage:**

7.3.1 The stores shall be well ventilation, far from heat and contamination sources.

7.3.2 The stores shall be complying with the requirements mentioned in Gulf Standard Stated in item (2.3).

## **8- Labeling:**

Without prejudice to what mentioned in Gulf Standard stated in item (2.1), the following shall be declared on the label:

8.1 Name of the product (Royal jelly).

8.2 Production and expiry dates, provide that the expiry date for chilled product storage at temperature not exceeds than 4°C, shall not exceed one month from production date, and not exceeds than one year from production date for frozen product storage at temperature not exceeds than( -18)°C.

8.3 Storage requirements.

8.4 For dried or jelly form products, the product shall be storage at room temperature (not exceed 25°C) for two years.

8.5 Writing the warning: May be cause sensitive for some persons, and not advice to take by pregnant, nurses and children.

8.6 Using method, according to human, kind and state.

